Virginia Article 3- Federal Operating Permit
Title V Operating Permit

Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Virginia Electric and Power Company
Facility Name:	Hopewell Power Station
Facility Location:	107 Terminal Street Hopewell, Virginia
Registration Number:	51019
Permit Number:	VA-51019

November 25, 2002
Effective Date

December 1, 2003
Amended Date

November 25, 2007
Expiration Date

_____
Robert G. Burnley
Director, Department of Environmental Quality

November 25, 2002
Signature Date

Table of Contents, 2 pages
Permit Conditions, 67 pages
Appendix - Phase II Acid Rain Permit

Virginia Electric and Power Company - Hopewell Power Station
Title V Operating Permit Table of Contents

I. FACILITY INFORMATION 4

II. EMISSION UNITS 5

III. FUEL BURNING EQUIPMENT REQUIREMENTS – PRIMARY COAL BOILERS (EMISSION UNIT ID NOS. 001 AND 002) 10

A. LIMITATIONS 13
B. MONITORING 15
C. REPORTING 17
D. RECORDKEEPING 19
E. TESTING 21

IV. FUEL BURNING EQUIPMENT REQUIREMENTS – AUXILIARY BOILER A (EMISSION UNIT NO. 003) 22

A. LIMITATIONS 24
B. MONITORING 25
C. RECORDKEEPING AND REPORTING 27
D. TESTING 29

V. FUEL BURNING EQUIPMENT REQUIREMENTS – AUXILIARY BOILER B (EMISSION UNIT NO. 005) 30

A. LIMITATIONS 31
B. MONITORING 32
C. RECORDKEEPING 33
D. TESTING 33

VI. FUEL BURNING EQUIPMENT REQUIREMENTS – COMBINED PRIMARY AND AUXILIARY BOILERS (EMISSION UNIT NOS. 001, 002, 003, AND 005 COMBINED) 34

A. LIMITATIONS 35
B. MONITORING 35
C. RECORDKEEPING 35
D. TESTING 36

VII. FUEL BURNING EQUIPMENT REQUIREMENTS – AUXILIARY DIESEL GENERATOR (UNIT REF. NO. 006), EMERGENCY DIESEL FEEDWATER PUMP (UNIT REF. NO. 007), DIESEL WELDER ENGINE (UNIT REF. NO. 008), AND EMERGENCY DIESEL FIREWATER PUMP (UNIT REF. NO. 009) 37

A. LIMITATIONS 37
B. MONITORING 39
C. RECORDKEEPING 40
D. TESTING 41

VIII. PROCESS EQUIPMENT REQUIREMENTS - COAL, ASH, AND LIME STORAGE AND HANDLING SYSTEMS (UNIT REF. NOS. 004A-H AND 010-017) 42

A. LIMITATIONS 43
B. MONITORING 45
C. RECORDKEEPING 46
D. TESTING 47

IX. INSIGNIFICANT EMISSION UNITS 48

X. PERMIT SHIELD & INAPPLICABLE REQUIREMENTS 49

XI. GENERAL CONDITIONS 51

A. FEDERAL ENFORCEABILITY 51
B. PERMIT EXPIRATION 51
C. RECORDKEEPING AND REPORTING 52
D. ANNUAL COMPLIANCE CERTIFICATION 53
E. PERMIT DEVIATION REPORTING 54
F. FAILURE/MALFUNCTION REPORTING 54
G. SEVERABILITY 54
H. DUTY TO COMPLY 54
I. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE 55
J. PERMIT ACTION FOR CAUSE 55
K. PROPERTY RIGHTS 56
L. DUTY TO SUBMIT INFORMATION 56
M. DUTY TO PAY PERMIT FEES 56
N. FUGITIVE DUST EMISSION STANDARDS 56
O. STARTUP, SHUTDOWN, AND MALFUNCTION 57
P. ALTERNATIVE OPERATING SCENARIOS 57
Q. INSPECTION AND ENTRY REQUIREMENTS 57
R. REOPENING FOR CAUSE 58
S. PERMIT AVAILABILITY 58
T. TRANSFER OF PERMITS 58
U. MALFUNCTION AS AN AFFIRMATIVE DEFENSE 59
V. PERMIT REVOCATION OR TERMINATION FOR CAUSE 60
W. DUTY TO SUPPLEMENT OR CORRECT APPLICATION 60
X. STRATOSPHERIC OZONE PROTECTION 60
Y. ACCIDENTAL RELEASE PREVENTION 60
Z. CHANGES TO PERMITS FOR EMISSIONS TRADING 60
AA. EMISSIONS TRADING 61

XII. STATE-ONLY ENFORCEABLE REQUIREMENTS 61

XIII. NOX ALLOWANCE BUDGET TRADING PERMIT REQUIREMENTS 62

A. GENERAL CONDITIONS 62
B. STANDARD REQUIREMENTS 63
C. RECORDKEEPING AND REPORTING REQUIREMENTS 65
D. TESTING 66
E. LIABILITY 66
F. EFFECT ON OTHER AUTHORITIES. 67

APPENDIX A - PHASE II ACID RAIN PERMIT ISSUED JULY 10, 2001

I. Facility Information

Permittee
Virginia Electric and Power Company
5000 Dominion Boulevard
Glen Allen, Virginia 23060

Responsible Official
Martin L. Bowling, Jr.
Vice President Operations Fossil and Hydro

Facility
Hopewell Power Station
107 Terminal Street
Hopewell, Virginia 23860

Contact Person
Pamela F. Faggert
Vice President & Chief Environmental Officer
(804) 273-3467

County Plant Identification Number: 670-00063

Facility Description: SIC Code 4931 – The Hopewell Power Station is an electric generating facility that produces electricity for sale to Dominion and processes steam for sale to Allied Signal Corp. At maximum capacity, Hopewell Power Station produces electricity and up to 95,000 lbs/hr of process steam. The station includes two coal-fired stoker boilers with associated coal, lime, and ash handling systems, as well as several small diesel engine sources used to provide redundant or backup capability. Although coal is the primary fuel for the stoker boilers, each boiler can fire natural gas for startup and warm standby. Two package auxiliary boilers, one 73.43 million btu/hr distillate oil/natural gas boiler and one 90 million btu/hr natural gas boiler, are located at the station to provide steam to the host during times when the plant is not generating electricity.

II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled*	Applicable Permit Date
Fuel Burning Equipment							
001	001	Spreader Stoker Boiler #1 combusts Coal or Natural Gas to generate steam for process use and electricity generation	391 x 10^6 BTU/hr firing coal (nominal); 59.5 x 10^6 BTU/hr firing natural gas (nominal)	1) Overfire Air System - staged combustion installed 1990; 2) Selective Non-catalytic Reduction System (SNCR) - ammonia injection installed 1990; 3) Flakt Dry Lime Scrubber installed 1990; 4) Fabric Filter Baghouse installed 1990	1) 001/EC -1a; 2) 001/EC -1b; 3) 001/EC -1c; 4) 001/EC -1d	1) NO_x (30% design control efficiency); 2) NO_x (40% design control efficiency); 3) SO_2 (92% design control efficiency); 4) PM, PM-10 (99.9% design control efficiency)	PSD permit issued 11/04/02

002	001	Spreader Stoker Boiler #2 combusts Coal or Natural Gas to generate steam for process use and electricity generation	391×10^6 BTU/hr firing coal (nominal); 59.5×10^6 BTU/hr firing natural gas (nominal)	1) Overfire Air System - staged combustion installed 1990; 2) Selective Non-catalytic Reduction System (SNCR) - ammonia injection installed 1990; 3) Flakt Dry Lime Scrubber installed 1990; 4) Fabric Filter Baghouse installed 1990	1) 002/EC-2a; 2) 002/EC-2b; 3) 002/EC-2c; 4) 002/EC-2d	1) NO_x (30% design control efficiency); 2) NO_x (40% design control efficiency); 3) SO_2 (92% design control efficiency); 4) PM, PM-10 (99.9% design control efficiency)	PSD permit issued 11/04/02
003	003	Auxiliary Boiler A combusts natural gas or distillate oil to produce steam for process use	73.43×10^6 BTU/hr firing natural gas or distillate oil (nominal)	1) Low NO_x Burners installed in 1990; and (2) Flue Gas Recirculation installed 1990	003/EC-3	1) NO_x (30% design control efficiency) 2) NO_x (60% design control efficiency)	PSD permit issued 11/04/02

005	005	Auxiliary Boiler B combusts natural gas to produce steam for process use	90 x 10^6 BTU/hr firing natural gas (nominal)	1) Low NO_x Burners installed 1994; 2) Flue Gas Recirculation installed 1994	1) 005/EC -5a; 2) 005/EC -5b	1) NO_x (30% design control efficiency); 2) NO_x (60% design control efficiency)	PSD permit issued 11/04/02
006	006	Auxiliary Diesel Generator	1.4 x 10^6 BTU/hr; 410 kW	none	N/A	N/A	PSD permit issued 11/04/02
007	007	Emergency Diesel Feedwater Pump	1.2 x 10^6BTU/hr; 126 BHP	none	N/A	N/A	PSD permit issued 11/04/02
008	008	Diesel Welder Engine	0.21 x 10^6 BTU/hr; 30 BHP	none	N/A	N/A	PSD permit issued 11/04/02
009	009	Diesel Firewater Pump Engine	0.68 x 10^6 BTU/hr; 208 BHP	none	N/A	N/A	PSD permit issued 11/04/02
Process Equipment - Coal, Lime, and Ash Handling and Storage							
004a	FUGI TIVE	Coal Unloading - railcar dumping to below grade hoppers	400 tons/hr	Dust Suppression Sprays installed 1990	004a/EC-4a	PM, PM-10 (75% design control efficiency)	PSD permit issued 11/04/02
004b	FUGI TIVE	Coal Pile Stacking - coal stacker tube	400 tons/hr	none	N/A	N/A	PSD permit issued 11/04/02

004c	FUGITIVE	Outdoor Coal Storage	18,000 tons	none	N/A	N/A	PSD permit issued 11/04/02
004d	FUGITIVE	Coal Crushing Operations - coal crushers	150 tons/hr	Building Enclosure/ Sprays installed 1990	004d/EC-4d	PM, PM-10 (90% design control efficiency)	PSD permit issued 11/04/02
004e	004e	Coal Silo #1 - crushed coal storage	180 tons	Bin Vent Filter installed 1990	004e/EC-4e	PM, PM-10 (0.02 gr/scf, ~98% design control efficiency)	PSD permit issued 11/04/02
004f	004f	Coal Silo #2 - crushed coal storage	180 tons	Bin Vent Filter installed 1990	004f/EC-4f	PM, PM-10 (0.02 gr/scf, ~98% design control efficiency)	PSD permit issued 11/04/02
004g	004g	Coal Silo #3 - crushed coal storage	180 tons	Bin Vent Filter installed 1990	004g/EC-4g	PM, PM-10 (0.02 gr/scf, ~98% design control efficiency)	PSD permit issued 11/04/02
004h	004h	Coal Silo #4 - crushed coal storage	180 tons	Bin Vent Filter installed 1990	004h/EC-4h	PM, PM-10 (0.02 gr/scf, ~98% design control efficiency)	PSD permit issued 11/04/02
010	010	Ash conveying - A ash conveying blower	27.8 tons/hr	Baghouse installed 1990	010/EC-10	PM, PM-10 (98% design control efficiency)	PSD permit issued 11/04/02
012	012	Ash conveying - B ash conveying blower	27.8 tons/hr	Baghouse installed 1990	012/EC-12	PM, PM-10 (98% design control efficiency)	PSD permit issued 11/04/02
013	013	Ash conveying - C ash conveying blower	13.7 tons/hr	Baghouse installed 1990	013/EC-13	PM, PM-10 (98% design control efficiency)	PSD permit issued 11/04/02

014	FUGITIVE	Ash Unloading Feeder - ash unloading	60 tons/hr	Ash Conditioning System - water sprays installed 1990	014/EC-14	PM, PM-10 (50% design control efficiency)	PSD permit issued 11/04/02
015	015	Recycle Ash Bin - recycle ash storage	26.5 tons	Bin Vent Filter installed 1990	015/EC-15	PM, PM-10 (0.02 gr/scf, ~98% design control efficiency)	PSD permit issued 11/04/02
016	016	Ash Silo - fly ash/bottom ash storage	530 tons	Bin Vent Filter installed 1990	016/EC-16	PM, PM-10 (0.02 gr/scf, ~98% design control efficiency)	PSD permit issued 11/04/02
017	017	Lime Silo - pebble lime storage	135 tons	Bin Vent Filter installed 1990	017/EC-17	PM, PM-10 (0.02 gr/scf, ~98% design control efficiency)	PSD permit issued 11/04/02

*The Size/Rated capacities and PCD efficiencies are provided for informational purposes only, and are not applicable requirements.

III. Fuel Burning Equipment Requirements – Primary Coal Boilers (Emission Unit ID Nos. 001 and 002)

Table III - Emission Limitations for Each Primary Coal Boiler, Unit Ref. Nos. 001 and 002

Regulated Pollutant	Limitation/Standard		Applicable Requirement	Reference Method (40 CFR 60, Appendix A)
	lb/hr	tons/yr		
NO_x (coal-firing)	0.30 lb/million btu on a 30-day rolling average basis		Part I, Condition 34, PSD permit issued 11/04/02; 40 CFR 60.44a(a)(1)	EPA Method 7 (if necessary)**
NO_x (coal-firing)	113.7 on a 30-day rolling avg. basis	478*	Part I, Condition 34, PSD permit issued 11/04/02	EPA Method 7 (if necessary)**
NO_x (natural gas-firing)	0.140 lb/million btu on a 30-day rolling average basis		Part I, Condition 35, PSD permit issued 11/04/02; 40 CFR 60.44a(a)(1)	EPA Method 7 (if necessary)**
NO_x (natural gas-firing)	8.33 on a 30-day rolling avg. basis	--	Part I, Condition 35, PSD permit issued 11/04/02	EPA Method 7 (if necessary)**
SO_2 (coal-firing)	0.162 lb/million btu on a 30-day rolling average basis		Part I, Condition 34, PSD permit issued 11/04/02; 40 CFR 60.43a(a)(1)	EPA Method 6 (if necessary)**
SO_2 (coal-firing)	61.3 on a 30-day rolling avg. basis	258*	Part I, Condition 34, PSD permit issued 11/04/02	EPA Method 6 (if necessary)**
SO_2 (natural gas-firing)	0.009 lb/million btu on a 30-day rolling average basis		Part I, Condition 35, PSD permit issued 11/04/02; 40 CFR 60.43a(b)(1) and (2)	EPA Method 6 (if necessary)**
SO_2 (natural gas-firing)	0.50 on a 30-day rolling avg. basis	--	Part I, Condition 35, PSD permit issued 11/04/02	EPA Method 6 (if necessary)**

Table III - Emission Limitations for Each Primary Coal Boiler, Unit Ref. Nos. 001 and 002				
Regulated Pollutant	Limitation/Standard		Applicable Requirement	Reference Method (40 CFR 60, Appendix A)
	lb/hr	tons/yr		
PM10 (coal-firing)	0.018 lb/million btu		Part I, Condition 34, PSD permit issued 11/04/02; 40 CFR 60.42a(a)	EPA Method 201a
PM10 (coal-firing)	6.8	29*	Part I, Condition 34, PSD permit issued 11/04/02	EPA Method 201a
PM10 (natural gas-firing)	0.013 lb/million btu		Part I, Condition 35, PSD permit issued 11/04/02; 40 CFR 60.42a(a)	EPA Method 201a
PM10 (natural gas-firing)	0.80	--	Part I, Condition 35, PSD permit issued 11/04/02	EPA Method 201a
PM (coal-firing)	0.020 lb/million btu		Part I, Condition 34, PSD permit issued 11/04/02; 40 CFR 60.42a(a)	EPA Method 201a
PM (coal-firing)	7.6	32*	Part I, Condition 34, PSD permit issued 11/04/02	EPA Method 201a
PM (natural gas-firing)	0.013 lb/million btu		Part I, Condition 35, PSD permit issued 11/04/02; 40 CFR 60.42a(a)	EPA Method 201a
PM (natural gas-firing)	0.80	--	Part I, Condition 35, PSD permit issued 11/04/02	EPA Method 201a
CO (coal-firing)	0.20 lb/million btu		Part I, Condition 34, PSD permit issued 11/04/02	EPA Method 10
CO (coal-firing)	76.0	318*	Part I, Condition 34, PSD permit issued 11/04/02	EPA Method 10
CO (natural gas-firing)	0.040 lb/million btu		Part I, Condition 35, PSD permit issued 11/04/02	EPA Method 10

Table III - Emission Limitations for Each Primary Coal Boiler, Unit Ref. Nos. 001 and 002				
Regulated Pollutant	Limitation/Standard		Applicable Requirement	Reference Method (40 CFR 60, Appendix A)
	lb/hr	tons/yr		
CO (natural gas-firing)	2.40	--	Part I, Condition 35, PSD permit issued 11/04/02	EPA Method 10
VOC (coal-firing)	0.030 lb/million btu		Part I, Condition 34, PSD permit issued 11/04/02	EPA Methods 18, 25, and 25a
VOC (coal-firing)	11.4	48*	Part I, Condition 34, PSD permit issued 11/04/02	EPA Methods 18, 25, and 25a
VOC (natural gas-firing)	0.009 lb/million btu		Part I, Condition 35, PSD permit issued 11/04/02	EPA Methods 18, 25, and 25a
VOC (natural gas-firing)	0.50	--	Part I, Condition 35, PSD permit issued 11/04/02	EPA Methods 18, 25, and 25a
Fluorides, as HF (coal-firing)	0.3	1.1	Part I, Condition 34, PSD permit issued 11/04/02	NA
Sulfuric Acid Mist (coal-firing)	4.7	20.5	Part I, Condition 34, PSD permit issued 11/04/02	NA

***** Annual emissions of NO_x, SO_2, PM-10, PM, CO, VOC, Fluorides as HF, and Sulfuric Acid Mist shall be calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-50-260 of State Regulations)

******Reference Methods 6 and 7 are the preferred alternative methods during periods of malfunction of the continuous emissions monitors (CEMs) for NO_x and SO_2. Unless otherwise specified, CEMs shall be utilized for monitoring these pollutants as specified in 40 CFR 60 Subpart Da.

A. Limitations

1. The throughput of coal to the primary boilers shall not exceed 253,932 tons per year, calculated monthly as the sum of each consecutive 12-month period.

   (9 VAC 5-170-160 of State Regulations, Part I, Condition 18, PSD permit issued 11/04/02)

2. Emissions from the primary coal boilers shall not exceed the emission limitations set forth in Table III of this permit. Unless otherwise specified in this permit, the provisions of 40 CFR 60 Subpart Da shall apply to the primary boilers (Unit Ref. Nos. 001 and 002). Unless otherwise specified by this permit, the permittee shall comply with the applicable Acid Rain Provisions of 40 CFR Parts 72, 73, and 75. The Phase II Acid Rain permit issued on July 10, 2001 is incorporated by reference into this permit (see Appendix A).

   (9 VAC 5-170-160 of State Regulations, 40 CFR 60.42a, 60.43a, and 60.44a, and 40 CFR Parts 72, 73, and 75)

3. Each primary coal boiler (Unit Ref. Nos. 001 & 002) shall not operate more than 8,400 hours per year calculated monthly as the sum of each consecutive 12-month period.

   (9 VAC 5-170-160 of State Regulations, Part I, Condition 17, PSD permit issued 11/04/02)

4. The auxiliary boilers (Unit Ref. Nos. 003 & 005) and the primary coal boilers (Unit Ref. Nos. 001 & 002) shall not be operated concurrently, except during start-up and shutdown, and for no more than 11 hours over any consecutive 24-hour period, unless both primary coal boilers (Unit Ref. Nos. 001 & 002) are operating at 50 percent capacity or less.

   (9 VAC 5-170-160 of State Regulations, Part I, Condition 23, PSD permit issued 11/04/02)

5. Particulate emissions from the primary coal boilers (Unit Ref. Nos. 001 & 002) shall be controlled by an in-line multiple cyclone, a lime-water injection spray dryer, and a fabric filter rated at 99.9 percent control efficiency. The control systems shall be provided with adequate access for inspection. The fabric filter may be bypassed during non-coal fuel boiler start-ups. Each fabric filter shall be equipped with a device to continuously measure pressure drop. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times. A condition assessment shall be conducted on the cyclone annually by the permittee to ensure the equipment is in proper operating

condition. Control efficiencies of the primary boiler fabric filters shall be demonstrated by maintaining records of proper operation and maintenance.

(9 VAC 5-80-1800 of State Regulations, Part I, Condition 3, PSD permit issued 11/04/02, and 40 CFR 60.42a(a)(1), (2), and (3), and 60.46a(a))

6. Sulfur dioxide emissions from the primary coal boilers (Unit Ref. Nos. 001 & 002) shall be controlled by a water-lime injection spray dryer (a dry FGD system) at 92 percent control efficiency. The 92 percent control efficiency requirement shall be demonstrated on a 30-day rolling average basis based on CEMs data collected at the inlet and outlet of the spray dryer. The control system shall be provided with adequate access for inspection. The scrubber shall be equipped with a flow meter and a device to continuously measure the differential pressure through the scrubber.

   (9 VAC 5-80-1800 of State Regulations, Part I, Condition 14, PSD permit issued 11/04/02, and 40 CFR 60.43a(a), (b), (g), and (h))

7. Nitrogen oxide emissions from the primary coal boilers (Unit Ref. Nos. 001 & 002) shall be controlled by a continuous coal feed system, staged combustion low excess air, and selective non-catalytic reduction.

   (9 VAC 5-80-1800 of State Regulations, Part I, Condition 15, PSD permit issued 11/04/02)

8. Approved fuels for the primary boilers (Unit Ref. Nos. 001 & 002) are bituminous coal and natural gas. Natural gas shall be fired during boiler start-up and to provide supplemental steam for the host facility. A change in the fuel may require a permit to modify and operate.

   (9 VAC 5-80-1800 of State Regulations, Part I, Condition 25, PSD permit issued 11/04/02)

9. The maximum sulfur content of the coal to be burned in the primary coal boilers (Unit Ref. Nos. 001 & 002) shall not exceed 1.3 percent by weight per shipment. Hopewell Power Station shall maintain records of all coal shipments received, indicating sulfur and ash content per shipment. These records shall be available on site for inspection by DEQ personnel and shall be kept on file for the most recent five (5) years.

   (9 VAC 5-170-160 of State Regulations, Part I, Condition 29, PSD permit issued 11/04/02)

10. In order to protect the short-term National Ambient Air Quality Standard for SO_2, the maximum SO_2 emissions from each of the primary boilers (Unit Ref. Nos. 001 & 002) for any 180-minute (3-hr) period shall not exceed 0.162 lbs per million BTU.

(9 VAC 5-170-160 of State Regulations, Part I, Condition 45, PSD permit issued 11/04/02)

11. Visible emissions from the primary and auxiliary boiler stacks (Unit Ref. Nos. 001, 002, 003, & 005) shall not exceed ten (10) percent opacity as determined by continuous opacity monitor or EPA Method 9 (ref. 40 CFR 60, App. A) except during one six-minute period per hour which shall not exceed twenty (20) percent opacity. This condition applies at all times except during start-up, shutdown, or malfunction.

    (9 VAC 5-170-160 of State Regulations, Part I, Conditions 48 and 49, PSD permit issued 11/04/02, 40 CFR 60.42a(b), and 40 CFR 60.43c(c) and (d))

12. Visible emissions from any fabric filter vent or exhaust duct not monitored by COMs shall not exceed five (5) percent opacity as determined by EPA Reference Method 9 (reference 40 CFR 60, Appendix A).

    (9 VAC 5-50-160 and 9 VAC 5-50-20 of State Regulations, Part I, Condition 50, PSD permit issued 11/04/02)

B. Monitoring

13. Continuous emission monitors shall be installed to measure and record opacity and the concentration of SO_2 (at the inlet and outlet of the spray dryer), NO_x (at each boiler outlet), and CO_2 or O_2 emitted from the primary coal boilers (Unit Ref. Nos. 001 & 002). Also, a device shall be installed to continuously measure and record the exhaust gas flow rate. They shall be maintained, located, calibrated, and quality assured/controlled in accordance with approved procedures (40 CFR 60.47a(e) and (f)). A 30-day notification prior to the demonstration of continuous monitoring system performance and subsequent notifications, are to be submitted to the Director, Piedmont Regional Office.

    (9 VAC 5-50-40 of State Regulations, Part I, Condition 54, PSD permit issued 11/04/02, 40 CFR 60.46a(g) and 60.47a(a), (b), (c), and (d))

14. At least one time per week, an observation of the presence of visible emissions from all fabric filter vents or exhaust ducts not monitored by COMs shall be made. If visible emissions are observed, the permittee shall take timely corrective action such that the units resume operation with no visible emissions or perform a visible emissions evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the vents or exhaust ducts do not exceed five percent (5%) opacity. The VEE shall be conducted for a minimum of six minutes. If any of the observations exceed 5 percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the units resume operation with visible emissions of 5 percent

or less. The permittee shall maintain an observation log to demonstrate compliance. The log shall include the date and the time of the observations, whether or not there were visible emissions, any VEE recordings, and any necessary corrective action.

(9 VAC 5-50-20 of State Regulations)

15. The continuous monitoring data generated by the SO_2 and NO_x monitors on the primary coal boilers (Unit Ref. Nos. 001 & 002) shall be used to determine compliance with the emissions standards in Table III of this document on a 30-day rolling average basis. All of the data capture, quality assurance provisions, and reporting requirements of NSPS Subpart Da shall apply.

    (9 VAC 5-50-40 of State Regulations, Part I, Condition 56, PSD permit issued 11/04/02, 40 CFR 60.46a(g), and 60.47a(c))

16. For the continuous emissions monitors on the boilers (Unit Ref. Nos. 001 and 002), the continuous emissions monitoring and quality assurance data may be used as evidence of violation of the emission standards in Table III of this document. For the continuous opacity monitors on the boilers (Units Ref. Nos. 001 and 002), the continuous opacity monitoring and quality assurance data may be used as evidence of violation of the opacity standards in Specific Condition 11 of this permit. These monitors are subject to such data capture requirements and/or quality assurance requirements as specified in 40 CFR 60.13 and 60.47a.

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 58, PSD permit issued 11/04/02)

17. The continuous monitoring data generated by the NO_x CEMS shall be used to determine continuous compliance with the 30-day rolling average NO_x emission standards in Table III of this document. A separate 30-day NO_x rolling average shall be determined for the primary boilers when firing natural gas and a separate 30-day NO_x rolling average shall be determined for the primary boilers when firing coal. Data from the NO_x CEMS shall be used to determine compliance with the emission standard on a 30-day rolling average. All of the CEMS calculation, data reduction, recordkeeping, and reporting requirements of NSPS Subpart Da shall apply.

    (9 VAC 5-50-40 of State Regulations, Part I, Condition 56, PSD permit issued 11/04/02, 40 CFR 60.46a(g) and 60.47a(a), (b), (c), and (d))

18. The continuous emission monitoring data generated by the SO_2 CEMS shall be used to determine compliance with the SO_2 3-hour average emission standard in Specific Condition 10 of this permit and the SO_2 30-day average removal efficiency rate specified in Specific Condition 6 of this document when the primary boilers are burning coal. Each SO_2 CEMS shall meet the data capture requirements of NSPS Subpart Da and the quality assurance requirements of 40 CFR 60, Appendix F. All of

the CEMS calculation, data reduction, recordkeeping, and reporting requirements of NSPS Subpart Da shall apply, except that for the purposes of 40 CFR 60.49a (b)(2) and (b)(3), all 3-hour SO_2 rolling averages and all 30-day rolling average values of SO_2 percent reduction shall be reported when the primary boilers are burning coal. In addition, the quarterly reporting shall include SO_2 emissions expressed in lbs/hr.

(9 VAC 5-50-40 of State Regulations, Part I Condition 57, PSD permit issued 11/04/02, 40 CFR 60.46a(g) and 60.47a(a), (b), (c), and (d))

19. Compliance with lb/mmBtu, lb/hour, and tons/year VOC and CO emission limits in Table III shall be determined by the use of pollutant-specific emission factors (F-factors or AP-42) and records of fuel throughput. The permittee shall calculate hourly (including lb/mmBtu) emissions daily and annual emissions monthly as the sum of each consecutive 12-month period.

    (9 VAC 5-80-110 and 9 VAC 5-80-490 of State Regulations)

20. Compliance with the lb/hour, lbs/mmBtu, and tons/year particulate (PM-10 and PM) emission limits in Table III shall be demonstrated by the use of pollutant-specific emission factors (F-factors or AP-42) and records of fuel throughput. In addition, the permittee shall demonstrate compliance by maintaining records of proper operation and maintenance of the cyclone, injection spray dryer, and fabric filter. The permittee shall calculate hourly emissions (including lbs/mmBtu) daily and annual emissions monthly as the sum of each consecutive 12-month period.

    (9 VAC 5-80-110 and 9 VAC 5-80-490 of State Regulations)

21. Compliance with the tons/year NO_x and SO_2 emission limits in Table III shall be demonstrated by the use of the primary boiler NO_x and SO_2 CEMs.

    (9 VAC 5-80-110 and 9 VAC 5-80-490 of State Regulations)

C. Reporting

22. Quarterly excess emission reports of monitored NO_x emissions for the primary boilers (Unit Ref. Nos. 001 & 002) shall include thirty boiler operating days for coal firing and thirty boiler operating days for natural gas firing. All of the CEM calculation, data reduction, recordkeeping, and reporting requirements of NSPS Subpart Da shall apply. A separate 30-day NO_x rolling average shall be determined for the primary boilers when firing natural gas and a separate 30-day NO_x rolling average shall be determined for the primary boilers when firing coal. Quarterly excess emission reports of monitored SO_2 emissions for the primary boilers (Unit Ref. Nos. 001 & 002) shall include thirty boiler operating days. The reports shall be submitted to DEQ no later than 30 days following the end of each calendar quarter. For the purposes of

40 CFR 60.49a (b)(2) and (b)(3), all 3-hour SO_2 rolling averages and all 30-day rolling average values of SO_2 percent reduction shall be reported when the primary boilers are burning coal. In addition, the quarterly reporting shall include SO_2 emissions expressed in lbs/hr. Quarterly reports shall be submitted to the Director, Piedmont Regional Office.

(9 VAC 5-80-1800 of State Regulations, Part I, Conditions 56 and 57, PSD permit issued 11/04/02, and 40 CFR 60.49a(a) and (b))

23. For sulfur dioxide and nitrogen oxides, the following information shall be included in the quarterly excess emission reports for each 24-hour period and shall be submitted to the Director, Piedmont Regional Office:

    1. Calendar date.
    2. The average sulfur dioxide and nitrogen oxide emission rates (ng/J or lb/million Btu) for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the emission standards; and, description of corrective actions taken.
    3. Percent reduction of the potential combustion concentration of sulfur dioxide when the unit is burning coal for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the standard; and, description of corrective actions taken.
    4. Identification of the boiler operating days for which pollutant or dilutent data have not been obtained by an approved method for at least 18 hours of operation of the facility; justification for not obtaining sufficient data; and description of corrective actions taken.
    5. Identification of the times when emissions data have been excluded from the calculation of average emission rates because of startup, shutdown, malfunction (NO_x only), emergency conditions (SO_2 only), or other reasons, and justification for excluding data for reasons other than startup, shutdown, malfunction, or emergency conditions.
    6. Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.
    7. Identification of times when hourly averages have been obtained based on manual sampling methods.
    8. Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.
    9. Description of any modifications to the continuous monitoring system which could affect the ability of the continuous monitoring system to comply with Performance Specifications 2 or 3.

    (40 CFR 60.49a(b)(1) through (b)(9))

24. If the minimum quantity of emission data as required by 40 CFR 60.47a is not obtained for any 30 successive boiler operating days, the following information obtained under the requirements of 40 CFR 60.46a(h) shall be reported to the Director, Piedmont Regional Office, for that 30-day period:
    1. The number of hourly averages available for outlet emission rates (n_0) and inlet emission rates (n_1) as applicable.
    2. The standard deviation of hourly averages for outlet emission rates (s_0) and inlet emission rates (s_1) as applicable.
    3. The lower confidence limit for the mean outlet emission rate (E_0*) and the upper confidence limit for the mean inlet emission rate (E_1*) as applicable.
    4. The applicable potential combustion concentration.
    5. The ratio of the upper confidence limit for the mean outlet emission rate (E_0*) and the allowable emission rate (E_{std}) as applicable.

    (40 CFR 60.49a(c)(1) through (c)(5))

25. For each required opacity monitor, quarterly reports of excess emissions and monitor downtime shall be submitted to the Director, Piedmont Regional Office, in accordance with approved procedures (reference 40 CFR 60.7 (c)).

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 58, PSD permit issued 11/04/02)

D. Recordkeeping

26. Hopewell Power Station shall maintain records of all coal shipments purchased, indicating sulfur and ash content per shipment. These records shall be available on site for inspection by DEQ personnel and shall be kept on file for the most recent five (5) years.

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 29, PSD permit issued 11/04/02)

27. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. These records shall include, but are not limited to:

    a. Annual fuel throughputs and annual hours of operation for the primary boilers (Unit Ref. Nos. 001 and 002) calculated monthly as the sum of each consecutive 12-month period.

b. The daily hours of concurrent operation of the primary boilers (Unit Ref. Nos. 001 and 002) and the auxiliary boilers (Unit Ref. Nos. 003 and 005) calculated hourly as the sum of each consecutive 24-hour period.

c. Records of boiler load for each of the primary boilers (Unit Ref. Nos. 001 and 002) during any hours of concurrent operation with the auxiliary boilers (Unit Ref. Nos. 003 and 005).

d. All pollutant-specific emission factors (F-factors or AP-42) and calculations including all assumptions used to demonstrate compliance with the lb/mmBtu, lb/hour, and tons/year VOC and CO limitations and the lb/hour and tons/year PM/PM-10 emission limitations in Table III.

e. All operation records (pressure gauge readings) for the injection spray dryer and maintenance records for the cyclone and fabric filters.

f. Records of injection spray dryer control efficiency rates on a 30-day rolling average basis based on CEMs data.

g. All fuel supplier certifications.

h. All COMs data necessary to demonstrate compliance with the opacity limitations for the stacks of Unit Ref. Nos. 001 and 002 in accordance with Specific Conditions 11 and 13 of this permit; and all CEMs data necessary to demonstrate compliance with the NO_x and SO_2 limitations specified in Table III.

i. Records of weekly visible emissions evaluations of the fabric filter vents and exhaust ducts.

These records shall be available on site for inspection by DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-50-50 and 9 VAC 5-60-50 of State Regulations, Part I, Condition 60, PSD permit issued 11/04/02)

28. For each NO_x and SO_2 continuous emission monitor (CEM) for the primary boilers (Unit Ref. Nos. 001 & 002), all of the CEM calculation, data reduction, recordkeeping, and reporting requirements of NSPS Subpart Da shall apply. All such records shall be available on site for inspection by DEQ and shall be current for the most recent five (5) years.

    (9 VAC 5-50-40 of State Regulations, Part I, Conditions 56 and 57, PSD permit issued 11/04/02)

E. Testing

29. If testing to demonstrate compliance is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

*The following table **applies** only **to** those pollutants that have emission limits.*

Pollutant	Test Method (40 CFR Part 60, Appendix A)**
VOC	EPA Methods 18, 25, 25a
VOC Content	EPA Methods 24, 24a
NO_x	EPA Method 7
SO_2	EPA Method 6
CO	EPA Method 10
PM/PM-10	EPA Method 5, 17
Visible Emission	EPA Method 9, 22

**Alternative equivalent methods may be utilized upon prior written DEQ approval. (9 VAC 5-80-110 and 9 VAC 5-80-490 of State Regulations)

IV. Fuel Burning Equipment Requirements – Auxiliary Boiler A (Emission Unit No. 003)

Table IV - Emission Limitations for Auxiliary Boiler A, Unit Ref. No. 003

Regulated Pollutant	Limitation/Standard		Applicable Requirement	Reference Method (40 CFR 60, Appendix A)**
	lb/hr	tons/yr		
NO_x (distillate oil-firing)	0.1* lb/million btu		Part I, Condition 36, PSD permit issued 11/04/02	EPA Method 7
NO_x (distillate oil-firing)	7.3*	-	Part I, Condition 36, PSD permit issued 11/04/02	EPA Method 7
NO_x (natural gas-firing)	0.065* lb/million btu		Part I, Condition 36, PSD permit issued 11/04/02	EPA Method 7
NO_x (natural gas-firing)	4.8*	-	Part I, Condition 36, PSD permit issued 11/04/02	EPA Method 7
SO_2 (distillate oil-firing)	0.31 lb/million btu		Part I, Condition 36, PSD permit issued 11/04/02; 40 CFR 60.42c(d)	EPA Method 6
SO_2 (distillate oil-firing)	22.8	-	Part I, Condition 36, PSD permit issued 11/04/02	EPA Method 6
PM10 (distillate oil-firing)	0.03 lb/million btu		Part I, Condition 36, PSD permit issued 11/04/02	EPA Methods 5 and 17
PM10 (distillate oil-firing)	2.2	-	Part I, Condition 36, PSD permit issued 11/04/02	EPA Methods 5 and 17

Table IV - Emission Limitations for Auxiliary Boiler A, Unit Ref. No. 003				
Regulated Pollutant	Limitation/Standard		Applicable Requirement	Reference Method (40 CFR 60, Appendix A)**
	lb/hr	tons/yr		
PM (distillate oil-firing)	0.04 lb/million btu		Part I, Condition 36, PSD permit issued 11/04/02	EPA Methods 5 and 17
PM (distillate oil-firing)	2.9	-	Part I, Condition 36, PSD permit issued 11/04/02	EPA Methods 5 and 17
CO (distillate oil-firing)	0.082 lb/million btu		Part I, Condition 36, PSD permit issued 11/04/02	EPA Method 10
CO (distillate oil-firing)	6.0	-	Part I, Condition 36, PSD permit issued 11/04/02	EPA Method 10
CO (natural gas-firing)	0.082 lb/million btu		Part I, Condition 36, PSD permit issued 11/04/02	EPA Method 10
CO (natural gas-firing)	6.0	-	Part I, Condition 36, PSD permit issued 11/04/02	EPA Method 10
VOC (distillate oil-firing)	0.041 lb/million btu		Part I, Condition 36, PSD permit issued 11/04/02	EPA Methods 18, 25, and 25a
VOC (distillate oil-firing)	3.0	-	Part I, Condition 36, PSD permit issued 11/04/02	EPA Methods 18, 25, and 25a
VOC (natural gas-firing)	0.041 lb/million btu		Part I, Condition 36, PSD permit issued 11/04/02	EPA Methods 18, 25, and 25a
VOC (natural gas-firing)	3.0	-	Part I, Condition 36, PSD permit issued 11/04/02	EPA Methods 18, 25, and 25a

*****Based on high heat release rate.

**Alternative equivalent methods may be utilized upon prior written DEQ approval.

A. Limitations

30. Particulate emissions from Auxiliary Boiler A (Unit Ref. No. 003) shall be controlled by good combustion practices.

    (9 VAC 5-80-110 and 9 VAC 5-80-490 of State Regulations, Part I, Condition 4, PSD permit issued 11/04/02)

31. Emissions from Auxiliary Boiler A (Unit Ref. No. 003) shall not exceed the limitations specified in Table IV.

    (9 VAC 5-170-160 of State Regulations and 40 CFR 60.42c(e))

32. The auxiliary boilers (Unit Ref. Nos. 003 & 005) and the primary coal boilers (Unit Ref. Nos. 001 & 002) shall not be operated concurrently, except during start-up and shutdown, and for no more than 11 hours over any consecutive 24-hour period, unless both primary coal boilers (Unit Ref. Nos. 001 & 002) are operating at 50 percent capacity or less.

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 23, PSD permit issued 11/04/02)

33. Visible emissions from the primary and auxiliary boiler stacks (Unit Ref. Nos. 001, 002, 003, & 005) shall not exceed ten (10) percent opacity as determined by continuous opacity monitor or EPA Method 9 (reference 40 CFR 60, Appendix A) except during one six-minute period per hour which shall not exceed twenty (20) percent opacity. This condition applies at all times except during start-up, shutdown, or malfunction.

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 48, PSD permit issued 11/04/02 and 40 CFR 60.43c(c))

34. The approved fuels for Auxiliary Boiler A (Unit Ref. No. 003) are natural gas and distillate oil. A change in the fuels may require a permit to modify and operate.

    (9 VAC 5-80-10 of State Regulations, Part I, Condition 27, PSD permit issued 11/04/02)

35. The maximum sulfur content of the distillate fuel oil to be burned in Auxiliary Boiler A (Unit Ref. No. 003) shall not exceed 0.3 percent by weight per shipment. Hopewell Power Station shall maintain records of all distillate fuel oil shipments purchased indicating the sulfur content per shipment. These records shall be

available on site for inspection by DEQ personnel and shall be kept on file for the most recent five (5) years.

(9 VAC 5-170-160 of State Regulations, Part I, Condition 30, PSD permit issued 11/04/02 and 40 CFR 60.42c(d))

36. The annual average sulfur content of the distillate fuel oil to be burned in Auxiliary Boiler A (Unit Ref. No. 003) shall not exceed 0.2 percent by weight. Hopewell Power Station shall calculate the annual average sulfur content of all distillate fuel oil consumed monthly as the sum of each consecutive 12-month period. These records shall be available on site for inspection by DEQ personnel and shall be kept on file for the most recent five (5) years.

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 31, PSD permit issued 11/04/02 and 40 CFR 60.42c(d))

37. The maximum sulfur content of the distillate fuel oil to be burned in Auxiliary Boiler A (Unit Ref. No. 003) during start-up and shutdown of the primary boilers (Unit Ref. Nos. 001 & 002) shall not exceed 0.2 percent by weight. Hopewell Power Station shall maintain records of the sulfur content of the distillate fuel oil used during periods of primary boiler start-up and shutdown. These records shall be available on site for inspection by DEQ personnel and shall be kept on file for the most current five (5) year period.

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 32, PSD permit issued 11/04/02 and 40 CFR 60.42c(d))

38. The Auxiliary Boiler A and B (Unit Ref. Nos. 003 and 005) stack heights each shall be constructed to a height of 200 feet or greater above ground level.

    (9 VAC 5-50-20 H of State Regulations, Part I, Condition 46, PSD permit issued 11/04/02)

39. Auxiliary Boiler A (Unit Ref. No. 003) shall be operated in compliance with Federal emissions requirements under 40 CFR 60, Subpart Dc.

    (9 VAC 5-170-160 of State Regulations, Part II, Condition 65, PSD permit issued 11/04/02)

B. Monitoring

40. A continuous emission monitor shall be installed to measure and record the opacity from Auxiliary Boiler A (Unit Ref. No. 003) when burning distillate fuel oil. It shall be maintained and calibrated in accordance with approved procedures (40 CFR 60.13 and 60.47c). A 30-day notification prior to the demonstration of continuous

monitoring system performance and subsequent notifications, are to be submitted to the Director, Piedmont Regional Office. At least one time per week when burning natural gas, an observation of the presence of visible emissions shall be made. If visible emissions are observed, the permittee shall take timely corrective action such that the boiler resumes operation with no visible emissions or perform a visible emissions evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the boiler stack do not exceed ten percent (10%) opacity. The VEE shall be conducted for a minimum of six minutes. If any of the observations exceed 10 percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the boiler resumes operation with visible emissions of 10 percent or less. The permittee shall maintain a boiler observation log to demonstrate compliance. The log shall include the date and the time of the observations, whether or not there were visible emissions, any VEE recordings, and any necessary corrective action.

(9 VAC 5-50-40 of State Regulations, Part I, Condition 55, PSD permit issued 11/04/02)

41. For the opacity monitor for Auxiliary Boiler A (Unit Ref. No. 003), the continuous opacity and quality assurance data may be used as evidence of violation of the opacity standards set forth in Specific Condition 33 of this permit. All other continuous monitors required by this permit are subject to such data capture requirements and/or quality assurance requirements as may be deemed appropriate (40 CFR 60.13 and 60.47c). For each required opacity monitor, quarterly reports of excess emissions and monitor downtime shall be submitted to the Director, Piedmont Regional Office, in accordance with approved procedures (40 CFR 60.7 (c)).

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 58, PSD permit issued 11/04/02)

42. The permittee shall calculate emissions of NO_x, SO_2, PM-10, PM, CO, and VOC in lbs/hr and lbs/mmBtu daily using appropriate pollutant-specific emission factors (F-factors or AP-42), hourly records of boiler heat input, and hourly throughput of natural gas and distillate fuel oil to demonstrate compliance with the emission limitations set forth in Table IV. The permittee shall calculate lb/mmBtu SO_2 emissions in accordance with approved procedures outlined in 40 CFR 60.44c(e).

    (9 VAC 5-170-160 of State Regulations and 40 CFR 60.44c(e))

43. Compliance with the lb/mmBtu SO_2 emission limitations set forth in Table IV shall be demonstrated by compliance with the SO_2 emission monitoring procedures outlined in 40 CFR 60.46c(d) or (e). If the permittee elects to follow the compliance procedures of 40 CFR 60.46c(e), the permittee shall obtain fuel supplier certifications as provided in 40 CFR 60.48c(f).

    (9 VAC 5-170-160 of State Regulations and 40 CFR 60.46c and 60.48c)

44. The permittee shall submit quarterly reports of SO_2 emissions and fuel oil sulfur content to the Director, Piedmont Regional Office. The quarterly reports shall be postmarked by the 30th day following the end of the reporting period. The reports shall include the information as specified in 40 CFR 60.48c(e).

    (40 CFR 60.48c(d))

C. Recordkeeping and Reporting

45. For each required opacity monitor, quarterly reports of excess emissions and monitor downtime shall be submitted to the Director, Piedmont Regional Office, in accordance with approved procedures (reference 40 CFR 60.7 (c)).

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 58, PSD permit issued 11/04/02)

46. The results of any sampling analyses of distillate fuel oil performed in accordance with Specific Condition 52 of this document which exceed 0.2 percent sulfur by weight and any performance test results in accordance with Specific Condition 52 of this document shall be submitted to the Director, Piedmont Regional Office.

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 33, PSD permit issued 11/04/02)

47. Hopewell Power Station shall maintain records of the <u>maximum</u> sulfur content of all distillate fuel oil shipments purchased indicating the maximum sulfur content per shipment. These records shall be available on site for inspection by DEQ personnel and shall be kept on file for the most recent five (5) years.

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 30, PSD permit issued 11/04/02)

48. Hopewell Power Station shall maintain records of the <u>annual average</u> sulfur content of all distillate fuel oil consumed by Auxiliary Boiler A (Unit Ref. No. 003), calculated monthly as the sum of each consecutive 12-month period. These records

shall be available on site for inspection by DEQ personnel and shall be kept on file for the most recent five (5) years.

(9 VAC 5-170-160 of State Regulations, Part I, Condition 31, PSD permit issued 11/04/02)

49. Hopewell Power Station shall maintain records of the maximum sulfur content of all distillate fuel oil consumed by Auxiliary Boiler A (Unit Ref. No. 003) during start-up and shutdown of the primary boilers (Unit Ref. Nos. 001 & 002). These records shall be available on site for inspection by DEQ personnel and shall be kept on file for the most recent five (5) years.

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 32, PSD permit issued 11/04/02)

50. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. These records shall include, but are not limited to:

    a. Process throughputs and daily hours of concurrent operation of the auxiliary boilers (Unit Ref. Nos. 003 and 005) with the primary boilers (Unit Ref. Nos. 001 and 002) calculated hourly as the sum of each consecutive 24-hour period.

    b. All fuel supplier certifications. Vendor receipts indicating fuel oil percent sulfur per shipment shall be considered certifications.

    c. All emission calculations demonstrating compliance with the emission limitations set forth in Table IV. Such records shall include all pollutant-specific emission factors (F-factors or AP-42) and all assumptions used in the calculations.

    d. All continuous opacity monitor records and VEE records.

    e. All records as specified in 40 CFR 60.48c(e)(1) through (11), (f), (g), and (i) including daily records of the amounts of each fuel combusted during each day.

    These records shall be available on site for inspection by DEQ and shall be current for the most recent five years.
    (9 VAC 5-50-50 of State Regulations, Part I, Condition 60, PSD permit issued 11/04/02, 40 CFR 60.48c(i))

51. Unless specified otherwise by the conditions of this permit, the permittee shall comply with the recordkeeping and reporting provisions of 40 CFR 60 Subpart A for Unit Ref. Nos. 001, 002, 003, and 005. The permittee shall maintain on-site records

of all applicable provisions of 40 CFR 60 Subpart A which have been met. Such records shall be made readily available for inspection.

(40 CFR 60.7(a) through (h), 40 CFR 60.8(a) through (f), 40 CFR 60.11(a) through (f), 40 CFR 60.12, 40 CFR 60.13(a) through (h), and 40 CFR 60.19)

52. Sampling shall be conducted or fuel purchase records shall be maintained to verify the maximum percent sulfur by weight in the fuel oil used during periods of primary boiler (Unit Ref. Nos. 001 & 002) start-up and shutdown as referenced in Specific Condition 37 of this permit. In addition, upon implementation of distillate fuel oil firing capability, performance tests must be performed in accordance with 40 CFR 60 Subparts A and Dc within 60 days of reaching maximum oil-firing capability but no later than 180 days after initial implementation of oil-firing capability. All sampling analyses exceeding 0.2 percent sulfur by weight and any required performance test results shall be submitted to the Director, Piedmont Regional Office.

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 33, PSD permit issued 11/04/02)

D. Testing

53. If testing to demonstrate compliance is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

*The following table **applies** only **to** those pollutants that have emission limits.*

Pollutant	Test Method (40 CFR Part 60, Appendix A)**
VOC	EPA Methods 18, 25, 25a
VOC Content	EPA Methods 24, 24a
NO_x	EPA Method 7
SO_2	EPA Method 6
CO	EPA Method 10
PM/PM-10	EPA Method 5, 17
Visible Emission	EPA Method 9, 22

**Alternative equivalent methods may be utilized upon prior written DEQ approval.
(9 VAC 5-80-110 and 9 VAC 5-80-490 of State Regulations)

V. Fuel Burning Equipment Requirements – Auxiliary Boiler B (Emission Unit No. 005)

Table V Emission Limitations for Auxiliary Boiler B, Unit Ref. No. 005				
Regulated Pollutant	Limitation/Standard		Applicable Requirement	Reference Method (40 CFR 60, Appendix A)**
	Lb/hr	tons/yr		
NO_x	0.05 lb/million btu		Part I, Condition 37, PSD permit issued 11/04/02	EPA Method 7
NO_x	4.5	-	Part I, Condition 37, PSD permit issued 11/04/02	EPA Method 7
PM10	0.0053 lb/million btu		Part I, Condition 37, PSD permit issued 11/04/02	EPA Methods 5 and 17
PM10	0.5	-	Part I, Condition 37, PSD permit issued 11/04/02	EPA Methods 5 and 17
PM	0.0053 lb/million btu		Part I, Condition 37, PSD permit issued 11/04/02	EPA Methods 5 and 17
PM	0.5	-	Part I, Condition 37, PSD permit issued 11/04/02	EPA Methods 5 and 17
CO	0.082* lb/million btu		Part I, Condition 37, PSD permit issued 11/04/02	EPA Method 10
CO	7.4	-	Part I, Condition 37, PSD permit issued 11/04/02	EPA Method 10
VOC	0.0082 lb/million btu		Part I, Condition 37, PSD permit issued 11/04/02	EPA Methods 18, 25, and 25a
VOC	0.8	-	Part I, Condition 37, PSD permit issued 11/04/02	EPA Methods 18, 25, and 25a

*****@ 15% excess air.
**Alternative equivalent methods may be utilized upon prior written DEQ approval.

A. Limitations

54. Particulate emissions from Auxiliary Boiler B (Unit Ref. No. 005) shall be controlled by good combustion practices.

    (9 VAC 5-80-110 and 9 VAC 5-80-490 of State Regulations, Part I, Condition 4, PSD permit issued 11/04/02)

55. Emissions from Auxiliary Boiler B (Unit Ref. No. 005) shall not exceed the limitations specified in Table V.

    (9 VAC 5-170-160 of State Regulations and 40 CFR 60.42c(e))

56. The auxiliary boilers (Unit Ref. Nos. 003 & 005) and the primary coal boilers (Unit Ref. Nos. 001 & 002) shall not be operated concurrently, except during start-up and shutdown, and for no more than 11 hours over any consecutive 24-hour period, unless both primary coal boilers (Unit Ref. Nos. 001 & 002) are operating at 50 percent capacity or less.

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 23, PSD permit issued 11/04/02)

57. Nitrogen oxide emissions from Auxiliary Boiler B (Unit Ref. No. 005) shall be controlled by the use of a low nitrogen dioxide burner and flue gas recirculation.

    (9 VAC 5-80-10 H and 9 VAC 5-50-260 of State Regulations, Part I, Condition 16, PSD permit issued 11/04/02)

58. Visible emissions from the primary and auxiliary boiler stacks (Unit Ref. Nos. 001, 002, 003, & 005) shall not exceed ten (10) percent opacity as determined by continuous opacity monitor or EPA Method 9 (ref. 40 CFR 60, App. A) except during one six-minute period per hour which shall not exceed twenty (20) percent opacity. This condition applies at all times except during start-up, shutdown, or malfunction.

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 48, PSD permit issued 11/04/02 and 40 CFR 60.43c(c))

59. The approved fuel for Auxiliary Boiler B (Unit Ref. No. 005) is natural gas. A change in the fuel may require a permit to modify and operate.

    (9 VAC 5-80-110 of State Regulations, Part I, Condition 26, PSD permit issued 11/04/02)

60. Auxiliary Boiler B (Unit Ref. No. 005) shall consume no more than 917.2 x 10^6 cubic feet of natural gas per year, calculated monthly as the sum of each consecutive 12-month period.

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 19, PSD permit issued 11/04/02)

61. The Auxiliary Boiler A and B (Unit Ref. Nos. 003 and 005) stack heights each shall be constructed to a height of 200 feet or greater above ground level.

    (9 VAC 5-50-20 H of State Regulations, Part I, Condition 46, PSD permit issued 11/04/02)

62. Auxiliary Boiler B (Unit Ref. No. 005) shall be operated in compliance with Federal emissions requirements under 40 CFR 60, Subpart Dc.

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 65, PSD permit issued 11/04/02)

B. Monitoring

63. The permittee shall calculate emissions of NO_x, PM-10, PM, CO, and VOC in lbs/hour and lbs/mmBtu daily using appropriate pollutant-specific emission factors (F-factors or AP-42), hourly records of boiler heat input, and hourly throughput of natural gas to demonstrate compliance with the emission limitations set forth in Table V.

    (9 VAC 5-170-160 of State Regulations)

64. At least one time per week, an observation of the presence of visible emissions from the stack of Auxiliary Boiler B (Unit Ref. No. 005) shall be made. If visible emissions are observed, the permittee shall take timely corrective action such that the boiler resumes operation with no visible emissions or perform a visible emissions evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the boiler stack do not exceed ten percent (10%) opacity. The VEE shall be conducted for a minimum of six minutes. If any of the observations exceed 10 percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the boiler resumes operation with visible emissions of 10 percent or less. The permittee shall maintain a boiler observation log to demonstrate compliance. The log shall include the date and the time of the observations, whether or not there were visible emissions, any VEE recordings, and any necessary corrective action.

    (9 VAC 5-170-160 of State Regulations)

C. Recordkeeping

65. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. These records shall include, but are not limited to:

    a. Process throughputs and daily hours of concurrent operation of the auxiliary boilers (Unit Ref. Nos. 003 and 005) with the primary boilers (Unit Ref. Nos. 001 and 002) calculated hourly as the sum of each consecutive 24-hour period.

    b. All emission calculations demonstrating compliance with the emission limitations set forth in Table V. Such records shall include all pollutant-specific emission factors (F-factors or AP-42) and all assumptions used in the calculations.

    c. All records of weekly opacity observations.

    d. Annual natural gas throughput in million cubic feet per year calculated monthly as the sum of each consecutive 12-month period.

    These records shall be available on site for inspection by DEQ and shall be current for the most recent five years.
    (9 VAC 5-170-160 and 9 VAC 5-50-50 of State Regulations)

D. Testing

66. If testing to demonstrate compliance is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

*The following table **applies** only **to** those pollutants that have emission limits.*

Pollutant	Test Method (40 CFR Part 60, Appendix A)**
VOC	EPA Methods 18, 25, 25a
VOC Content	EPA Methods 24, 24a
NO_x	EPA Method 7
SO_2	EPA Method 6
CO	EPA Method 10
PM/PM-10	EPA Method 5, 17
Visible Emission	EPA Method 9, 22

**Alternative equivalent methods may be utilized upon prior written DEQ approval.
(9 VAC 5-80-110 and 9 VAC 5-80-490 of State Regulations)

VI. Fuel Burning Equipment Requirements – Combined Primary and Auxiliary Boilers (Emission Unit Nos. 001, 002, 003, and 005 combined)

Table VI - Emission Limitations for Primary Coal Boilers (Unit Ref. Nos. 001 & 002) and Auxiliary Boilers A & B (Unit Ref. Nos. 003 & 005), Combined

Regulated Pollutant	Limitation/Standard		Applicable Requirement	Reference Method**
	lb/hr	tons/yr		
NO_x	-	956.2*	Part I, Condition 38, PSD permit issued 11/04/02	NA
SO_2	-	518.7*	Part I, Condition 38, PSD permit issued 11/04/02	NA
PM10	-	58.4*	Part I, Condition 38, PSD permit issued 11/04/02	NA
PM	-	64.5*	Part I, Condition 38, PSD permit issued 11/04/02	NA
CO	-	637.1*	Part I, Condition 38, PSD permit issued 11/04/02	NA
VOC	-	96.5*	Part I, Condition 38, PSD permit issued 11/04/02	NA

***** Annual emission of NO_x, SO_2, PM-10, PM, CO, and VOC shall be calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-50-260 of State Regulations)
**Alternative equivalent methods may be utilized upon prior written DEQ approval.

A. Limitations

67. The auxiliary boilers (Unit Ref. Nos. 003 & 005) and the primary coal boilers (Unit Ref. Nos. 001 & 002) shall not be operated concurrently, except during start-up and shutdown, and for no more than 11 hours over any consecutive 24-hour period, unless both primary coal boilers (Unit Ref. Nos. 001 & 002) are operating at 50 percent capacity or less.

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 23, PSD permit issued 11/04/02)

68. Annual emissions from the operation of the primary and auxiliary boilers combined (Unit Ref. Nos. 001, 002, 003, & 005) shall not exceed the limitations in Table VI. The boilers shall be operated in accordance with the NO_x Trading Rule requirements in 9 VAC 5 Chapter 140.

    (9 VAC 5-170-160 and 9 VAC 5-140-10 of State Regulations)

B. Monitoring

69. Compliance with the tons/year particulate (PM-10 and PM), CO, and VOC emission limits in Table VI shall be demonstrated by the use of pollutant-specific emission factors (F-factors or AP-42) and records of monthly fuel throughput for the primary and auxiliary boilers. Compliance with the tons/year SO_2 and NO_x emission limits for the auxiliary boilers shall be demonstrated by the use of pollutant-specific emission factors (F-factors or AP-42) and records of monthly fuel throughput for the auxiliary boilers. The permittee shall calculate annual emissions monthly as the sum of each consecutive 12-month period. The primary boiler contribution to the combined tons/year NO_x and SO_2 emission limits in Table VI shall be demonstrated by the use of the primary boiler NO_x and SO_2 CEMS data.

    (9 VAC 5-170-160 of State Regulations)

C. Recordkeeping

70. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Piedmont Regional Office. These records shall include, but are not limited to:

    a. Annual fuel throughput for each primary and auxiliary boiler calculated monthly as the sum of each consecutive 12-month period.

b. Annual combined emissions from the primary and auxiliary boilers (Unit Ref. Nos. 001, 002, 003, and 005) demonstrating compliance with the limitations in Table VI calculated monthly as the sum of each consecutive 12-month period.

These records shall be available at the facility for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-50-50 and 9 VAC 5-80-110 and 9 VAC 5-80-490 of State Regulations)

D. Testing

71. If testing to demonstrate compliance is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

*The following table **applies** only **to** those pollutants that have emission limits.*

Pollutant	Test Method (40 CFR Part 60, Appendix A)**
VOC	EPA Methods 18, 25, 25a
VOC Content	EPA Methods 24, 24a
NO_x	EPA Method 7
SO_2	EPA Method 6
CO	EPA Method 10
PM/PM-10	EPA Method 5, 17
Visible Emission	EPA Method 9, 22

**Alternative equivalent methods may be utilized upon prior written DEQ approval.
(9 VAC 5-80-110 and 9 VAC 5-80-490 of State Regulations)

VII. Fuel Burning Equipment Requirements – Auxiliary Diesel Generator (Unit Ref. No. 006), Emergency Diesel Feedwater Pump (Unit Ref. No. 007), Diesel Welder Engine (Unit Ref. No. 008), and Emergency Diesel Firewater Pump (Unit Ref. No. 009)

Table VII.A - Emission Limitations for Auxiliary Diesel Generator (Unit Ref. No. 006)

Regulated Pollutant	Limitation/Standard		Applicable Requirement	Reference Method**
	lb/hr	tons/yr		
NO_x	6.2	1.0*	Part I, Condition 39, PSD permit issued 11/04/02	EPA Method 7

Table VII.B - Emission Limitations for Emergency Diesel Feedwater Pump (Unit Ref. No. 007)

Regulated Pollutant	Limitation/Standard		Applicable Requirement	Reference Method**
	lb/hr	tons/yr		
NO_x	5.4	0.5*	Part I, Condition 40, PSD permit issued 11/04/02	EPA Method 7

*****Annual emissions of NO_x shall be calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-50-260 of State Regulations)
**Alternative equivalent methods may be utilized upon prior written DEQ approval.

A. Limitations

72. Emissions from the auxiliary diesel generator (Unit Ref. No. 006) and the emergency diesel feedwater pump (Unit Ref. No. 007) shall not exceed the limitations in Tables VII.A and VII.B respectively.

    (9 VAC 5-170-160 of State Regulations)

73. The portable auxiliary diesel generator (Unit Ref. No. 006) shall consume no more than 3,360 gallons of distillate oil per year calculated monthly as the sum of each consecutive 12-month period.

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 20, PSD permit issued 11/04/02)

74. The emergency diesel feedwater pump (Unit Ref. No. 007) shall consume no more than 1,044 gallons of distillate oil per year calculated monthly as the sum of each consecutive 12-month period.

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 21, PSD permit issued 11/04/02)

75. The emergency diesel firewater pump (Unit Ref. No. 009) shall consume no more than 580 gallons of distillate oil per year calculated monthly as the sum of each consecutive 12-month period.

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 22, PSD permit issued 11/04/02)

76. Visible emissions from the operation of the portable auxiliary diesel generator (Unit Ref. No. 006), emergency boiler diesel feedwater pump (Unit Ref. No. 007), the diesel welder engine (Unit Ref. No. 008), and the emergency diesel firewater pump (Unit Ref. No. 009) shall not exceed ten (10) percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A) except during one six-minute period in any one hour in which visible emissions shall not exceed twenty (20) percent opacity.

    (9 VAC 5-170-160 and 9 VAC 5-50-20 E of State Regulations, Part I, Condition 51, PSD permit issued 11/04/02)

77. The approved fuel for the portable auxiliary diesel generator (Unit Ref. No. 006), the emergency diesel boiler feedwater pump (Unit Ref. No. 007), the diesel welder engine (Unit Ref. No. 008), and the emergency diesel firewater pump (Unit Ref. No. 009) is distillate oil. Distillate oil is defined as fuel oil that meets the specifications for fuel oil numbers 1 or 2 of the American Society for Testing and Materials. A change in the fuel may require a permit to modify and operate.

    (9 VAC 5-80-10 of State Regulations, Part I, Condition 28, PSD permit issued 11/04/02)

78. The maximum sulfur content of the distillate fuel oil to be burned in the portable auxiliary diesel generator (Unit Ref. No. 006), the emergency diesel feedwater pump (Unit Ref. No. 007), the diesel welder engine (Unit Ref. No. 008), and the emergency diesel firewater pump (Unit Ref. No. 009) shall not exceed 0.3 percent by weight per shipment. Hopewell Power Station shall maintain records of all distillate fuel oil shipments purchased indicating the sulfur content per shipment. These records shall be available on site for inspection by DEQ personnel and shall be kept on file for the most recent five (5) years.

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 30, PSD permit issued 11/04/02)

B. Monitoring

79. Emissions from the auxiliary diesel generator (Unit Ref. No. 006) and the emergency diesel feedwater pump (Unit Ref. No. 007) shall not exceed the limitations specified in Tables VII.A and VII.B respectively. The permittee shall calculate annual NO_x emissions for each unit monthly as the sum of each consecutive 12-month period using monthly fuel throughput and pollutant-specific AP-42 emission factors (F-factors or AP-42) or other appropriate unit-specific factor (manufacturer specifications). In lieu of such calculations, the permittee may elect to make a one-time demonstration of the correlation between monthly permitted fuel throughput of the units and annual emissions. In such case, compliance with the annual fuel throughput limitations for Unit Ref. Nos. 006 and 007 shall be deemed sufficient to demonstrate compliance with the annual NO_x limitation set forth in Tables VII.A and VII.B. The permittee shall make a one-time demonstration of maximum hourly NO_x emissions from the auxiliary diesel generator and the emergency diesel feedwater pump using manufacturer specifications for maximum heat input (or power output) and appropriate AP-42 emission factors or manufacturer test data. The permittee shall maintain a record of this one-time demonstration of maximum hourly NO_x emissions on-site for the life of the unit.

    (9 VAC 5-170-160 of State Regulations)

80. At least one time per month that the units operate, an observation of the presence of visible emissions from the stacks of Unit Ref. Nos. 006, 007, 008, and 009 shall be made. If visible emissions are observed, the permittee shall take timely corrective action such that the units resume operation with no visible emissions or perform a visible emissions evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the units do not exceed ten percent (10%) opacity. The VEE shall be conducted for a minimum of six minutes. If any of the observations exceed 10 percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the units resume operation with visible emissions of 10 percent or less. The permittee shall maintain an observation log to demonstrate compliance. The log shall

include the date and the time of the observations, whether or not there were visible emissions, any VEE recordings, and any necessary corrective action.

(9 VAC 5-50-20 of State Regulations)

C. Recordkeeping

81. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. These records shall include, but are not limited to:

    a. Annual fuel throughput in gallons for each of the units (Unit Ref. Nos. 006, 007, 008, and 009) calculated monthly as the sum of each consecutive 12-month period.

    b. All fuel supplier certifications. Vendor receipts containing the required information pertaining to low sulfur oil shall be considered certifications for the purposes of this permit.

    c. A one-time calculation of maximum hourly NO_x emissions from the auxiliary diesel generator (Unit Ref. No. 006) and the emergency diesel feedwater pump (Unit Ref. No. 007) to be maintained on-site and readily accessible for inspection for the life of each unit.

    d. Calculations of annual NO_x emissions from the auxiliary diesel generator (Unit Ref. No. 006) and the emergency diesel feedwater pump (Unit Ref. No. 007) calculated monthly as the sum of each consecutive 12-month period. In lieu of monthly calculations, the permittee may elect to maintain records of a one-time demonstration of maximum annual emissions for each unit based on maximum annual permitted fuel throughput. Such records shall be maintained on-site and readily accessible for inspection for the life of each unit.

    e. Any visible emissions evaluations.

    These records shall be available on site for inspection by DEQ and shall be current for the most recent five years.
    (9 VAC 5-50-50 of State Regulations, Part I, Condition 60, PSD permit issued 11/04/02)

82. Hopewell Power Station shall maintain records of the <u>maximum</u> sulfur content of all distillate fuel oil shipments purchased indicating the maximum sulfur content per shipment. These records shall be available on site for inspection by DEQ personnel and shall be kept on file for the most recent five (5) years.

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 30, PSD permit issued 11/04/02)

D. Testing

83. If testing to demonstrate compliance is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

*The following table **applies** only **to** those pollutants that have emission limits.*

Pollutant	Test Method (40 CFR Part 60, Appendix A)**
VOC	EPA Methods 18, 25, 25a
VOC Content	EPA Methods 24, 24a
NO_x	EPA Method 7
SO_2	EPA Method 6
CO	EPA Method 10
PM/PM-10	EPA Method 5, 17
Visible Emission	EPA Method 9, 22

**Alternative equivalent methods may be utilized upon prior written DEQ approval. (9 VAC 5-80-110 and 9 VAC 5-80-490 of State Regulations)

VIII. Process Equipment Requirements - Coal, Ash, and Lime Storage and Handling Systems (Unit Ref. Nos. 004a-h and 010-017)

Table VIII.A - Emission Limitations for Coal and Lime Storage and Handling Systems, Unit Ref. Nos. 004a-h, and 017

Regulated Pollutant	Limitation/Standard		Applicable Requirement	Reference Method**
	lb/hr	tons/yr		
PM	0.3*	1.2*	Part I, Condition 41, PSD permit issued 11/04/02	--
PM10	0.3*	1.2*	Part I, Condition 41, PSD permit issued 11/04/02	--

Table VIII.B - Emission Limitations for the Ash Handling System, Unit Ref. Nos. 010, 012, 013, and 014

Regulated Pollutant	Limitation/Standard		Applicable Requirement	Reference Method**
	lb/hr	tons/yr		
PM	5.0*	2.0*	Part I, Condition 42, PSD permit issued 11/04/02	--
PM10	2.4*	1.0*	Part I, Condition 42, PSD permit issued 11/04/02	--

*These emissions are derived from the estimated overall emission contribution and are included for emission inventory purposes. Compliance shall be determined as stated in Specific Conditions 84-97 of this permit.
(9 VAC 5-50-260 of State Regulations)
**Alternative equivalent methods may be utilized upon prior written DEQ approval.

Table VIII.C - Emission Limitations for Ash Storage (Ash Silo), Unit Ref. No. 016				
Regulated Pollutant	Limitation/Standard		Applicable Requirement	Reference Method**
	lb/hr	tons/yr		
PM	0.6*	2.6*	Part I, Condition 43, PSD permit issued 11/04/02	EPA Methods 5 and 17
PM10	0.6*	2.6*	Part I, Condition 43, PSD permit issued 11/04/02	EPA Methods 5 and 17

Table VIII.D - Emission Limitations for Recycle Ash Storage (Recycle Ash Silo), Unit Ref. No. 015				
Regulated Pollutant	Limitation/Standard		Applicable Requirement	Reference Method**
	lb/hr	tons/yr		
PM	0.2*	1.0*	Part I, Condition 44, PSD permit issued 11/04/02	EPA Methods 5 and 17
PM10	0.2*	1.0*	Part I, Condition 44, PSD permit issued 11/04/02	EPA Methods 5 and 17

*These emissions are derived from the estimated overall emission contribution and are included for emission inventory purposes. Compliance shall be determined as stated in Specific Conditions 84-97 of this permit.
(9 VAC 5-50-260 of State Regulations)
**Alternative equivalent methods may be utilized upon prior written DEQ approval.

A. Limitations

84. Particulate emissions from the coal feed silos, lime storage silo, recycle bin, discharge storage silo, flyash silo, and bottom ash silo (Unit Ref. Nos. 04.a.-h., 010-016) shall be controlled by fabric filters. The fabric filters shall be provided with adequate access for inspection.

    (9 VAC 5-80-10 F of State Regulations, Part I, Condition 5, PSD permit issued 11/04/02)

85. Fugitive dust emissions from coal unloading, feeding, and conveying shall be controlled by enclosure and wet suppression with surfactant as necessary.

    (9 VAC 5-50-90 of State Regulations, Part I, Condition 6, PSD permit issued 11/04/02)

86. Lime slaker emissions shall be controlled by a dust suppression aspirator and water jet spray system (venturi scrubber). The aspirator vapor discharge shall be piped directly to the slurry tank for complete enclosure of all dust particles produced during the slaking process. The control system shall be provided with adequate access for inspection and shall have a device for continuous measurement of pressure drop.

    (9 VAC 5-80-10 F of State Regulations, Part I, Condition 7, PSD permit issued 11/04/02)

87. The coal crusher (Unit Ref. No. 004.d.) shall be enclosed to prevent fugitive dust emissions. A fabric filter or other dust control methods, as approved by the Director, Piedmont Regional Office, may be required after visible inspection by DEQ personnel.

    (9 VAC 5-50-90 of State Regulations, Part I, Condition 8, PSD permit issued 11/04/02)

88. All conveyor belt returns shall be equipped with a belt scraper system. Scrapings shall be returned in an enclosed manner to the main flow of material.

    (9 VAC 5-50-90 of State Regulations, Part I, Condition 9, PSD permit issued 11/04/02)

89. Fugitive dust emissions from the coal feed silos (Unit Ref. Nos. 004.e., f., g., & h.) to the primary boiler feed hopper shall be controlled by enclosed belt feed conveyors.

    (9 VAC 5-50-90 of State Regulations, Part I, Condition 10, PSD permit issued 11/04/02)

90. Fugitive dust emissions from the ash and flue gas desulfurization product storage silo shall be controlled by mixing the discharge with water.

    (9 VAC 5-50-90 of State Regulations, Part I, Condition 11, PSD permit issued 11/04/02)

91. Coal stockpiles (Unit Ref. No. 004.c.) shall be moist or treated (wet suppression and surfactant) and the stockpile surfaces shall be kept moist or treated as required to minimize emissions during storage and handling.

    (9 VAC 5-50-90 of State Regulations, Part I, Condition 12, PSD permit issued 11/04/02)

92. Fugitive emissions from facility access roads shall be controlled by paving.

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 13, PSD permit issued 11/04/02)

93. Emissions from the Coal, Ash, and Lime Storage and Handling Systems (Unit Ref. Nos. 004a-h and 010-017) shall not exceed the limitations in Tables VIII.A, B., C., and D.

    (9 VAC 5-170-160 of State Regulations)

94. The ash unloading/truck unloading system shall not process more than 48,882 tons per year of material, calculated monthly as the sum of each consecutive 12-month period.

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 24, PSD permit issued 11/04/02)

95. Visible emissions from all fabric filters (except those on the primary boilers) shall not exceed five (5) percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).

    (9 VAC 5-170-160 and 9 VAC 5-50-20 E of State Regulations, Part I, Condition 50, PSD permit issued 11/04/02, 40 CFR 60.252(c))

96. Visible emissions from the ash unloading/truck loading system shall not exceed ten (10) percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 52, PSD permit issued 11/04/02)

97. Visible emissions from the coal storage pile (Unit Ref. No. 004.c.) shall not exceed ten (10) percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).

    (9 VAC 5-170-160 of State Regulations, Part I, Condition 53, PSD permit issued 11/04/02)

B. Monitoring

98. Compliance with the limitations set forth in Tables VIII.A, B., C., and D shall be demonstrated by compliance with the provisions of Specific Conditions 84 through 97 (inclusive) of this permit.

    (9 VAC 5-170-160 of State Regulations)

99. The Performance Test for Coal Handling and Processing Equipment dated November 23 and December 18, 1997, and submitted to DEQ on January 2, 1998, completes the requirement for opacity testing of Unit Ref. Nos. 04.a. through h. as required by 40 CFR 60 Subpart Y (reference 40 CFR 60.254). A corrected report (the height of the emission point relative to the observer was corrected) was submitted to DEQ on March 9, 1998. The results of this performance test indicated 0% (zero percent) opacity for all affected units as determined by EPA Method 9. Therefore, the permittee shall be considered in compliance with the testing requirements of 40 CFR

60.254 and with the opacity and particulate matter requirements of 40 CFR 60.252(c). At least one time per week when in operation, an observation of the presence of visible emissions shall be made. If visible emissions are observed, the permittee shall take timely corrective action such that the units resume operation with no visible emissions or perform a visible emissions evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the units do not exceed ten percent (10%) opacity and five percent (5%) for the fabric filters. The VEE shall be conducted for a minimum of six minutes. If any of the observations exceed 10 percent or 5 percent for the fabric filters, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the units resume operation with visible emissions of 10 percent or less or 5 percent or less for the fabric filters. The permittee shall maintain an observation log to demonstrate compliance. The log shall include the date and the time of the observations, whether or not there were visible emissions, any VEE recordings, and any necessary corrective action.

(40 CFR 60.252(c) and 40 CFR 60.254(b)(2))

C. Recordkeeping

100. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. These records shall include, but are not limited to:

a. Annual throughput of material through the ash unloading/truck unloading system in tons per year calculated monthly as the sum of each consecutive 12-month period.

b. Performance test records in accordance with 40 CFR 60.252(c) and 60.254, Subpart Y and VEE records.

(9 VAC 5-50-50 of State Regulations, Part I, Condition 60, PSD permit issued 11/04/02)

101. Hopewell Power Station shall estimate the mass of material processed by the ash unloading/truck loading system. The estimate shall be based upon the amount of coal burned and/or the amount of lime sorbent used and/or a measurement of the amount of material unloaded. The assumptions and records used to estimate emissions shall be documented and available on site for inspection by DEQ personnel. These records shall be kept on file for the most current five (5) year period.

(9 VAC 5-170-160 of State Regulations, Part I, Condition 24, PSD permit issued 11/04/02)

D. Testing

102. If testing to demonstrate compliance is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

*The following table **applies** only **to** those pollutants that have emission limits.*

Pollutant	Test Method (40 CFR Part 60, Appendix A)**
VOC	EPA Methods 18, 25, 25a
VOC Content	EPA Methods 24, 24a
NO_x	EPA Method 7
SO_2	EPA Method 6
CO	EPA Method 10
PM/PM-10	EPA Method 5, 17
Visible Emission	EPA Method 9, 22

**Alternative equivalent methods may be utilized upon prior written DEQ approval. (9 VAC 5-80-110 and 9 VAC 5-80-490 of State Regulations)

IX. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
ISU-1	Turbine Lube Oil Reservoir	5-80-720 B.1	VOC	3,434 gallons
ISU-2	Solvent Based Parts Washer	5-80-720 B.1	VOC	55 gallons
ISU-3	Waste Oil Tank	5-80-720 C.2.a.	NA	500 gallons
ISU-4	Portable Welder Engine	5-80-720 B.1.	NOx, SO_2, VOC, PM, PM-10, CO	0.21 mmBtu/hr
ISU-5	Oil/Water Separator (Oil Sump)	5-80-720 C.2.a.	NA	280 gallons

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110 and 9 VAC 5-80-490.

X. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
40 CFR 60 Subpart D,	Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971	
40 CFR 60 Subpart Db,	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units	
40 CFR 60 Subpart K,	Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and prior to May 19, 1978	No emissions sources at this facility are subject to these NSPS requirements.
40 CFR 60 Subpart Ka	Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and prior to July 23, 1984	
40 CFR 60 Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to §114 of the

federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.
(9 VAC 5-80-140 and 9 VAC 5-80-500)

XI. General Conditions

A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act.
(9 VAC 5-80-110 N and 9 VAC 5-80-490 N)

B. Permit Expiration

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete renewal application to the Department consistent with 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.

2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.

3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.

4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal, but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied, and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.

5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant to section 9 VAC 5-80-80 D, the applicant fails to submit, by the deadline specified in writing by the Board, any additional information identified as being needed to process the application.
(9 VAC 5-80-430 B, C and F, 9 VAC 5-80-490 D and 9 VAC 5-80-530 B)

C. Recordkeeping and Reporting

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

   a. The date, place as defined in the permit, and time of sampling or measurements.

   b. The date(s) analyses were performed.

   c. The company or entity that performed the analyses.

   d. The analytical techniques or methods used.

   e. The results of such analyses.

   f. The operating conditions existing at the time of sampling or measurement.

   (9 VAC 5-80-490 F)

2. Records of all monitoring data and support information shall be retained for at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
   (9 VAC 5-80-490 F)

3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ. Reports shall cover a period of six months. The reporting periods shall be from the first day of the month to the last day of the sixth month. Reports shall be postmarked or delivered no later than 60 days following the end of the reporting period. The first reporting period shall commence on the first day of the second month following permit issuance. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

   a. The time period included in the report.

   b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:

      (1) Exceedance of emissions limitations or operational restrictions;

      (2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,

      (3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

(9 VAC 5-80-490 F)

D. Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices for a period of twelve months. The report shall be postmarked or delivered no later than 60 days following the end of the twelve-month period. The reporting periods shall coincide with the monitoring reporting periods. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification.
2. The identification of each term or condition of the permit that is the basis of the certification.
3. The compliance status.
4. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.
5. Consistent with subsection 9 VAC 5-80-490 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.
6. Such other facts as the permit may require to determine the compliance status of the source.

One copy of the annual compliance certification shall be sent to EPA at the following address:

Clean Air Act Title V Compliance Certification (3AP00)
U. S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029.

(9 VAC 5-80-490 K.5)

E. Permit Deviation Reporting

The permittee shall notify the Director, Piedmont Regional Office, within 4 daytime business hours of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the occurrence, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition XI.C.3. of this permit.
(9 VAC 5-80-490 F and 9 VAC 5-80-250)

F. Failure/Malfunction Reporting

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours, notify the Director, Piedmont Regional Office by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within two weeks provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, Piedmont Regional Office.
(9 VAC 5-20-180 C**,** 9 VAC 5-40-50, and 9 VAC 5-50-50)

G. Severability

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-490 G)

H. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9 VAC 5-80-490 G.2)

I. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-490 G)

J. Permit Action for Cause

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause as specified in 9 VAC 5-80-110 L, 9 VAC 5-80-240 and 9 VAC 5-80-260. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
(9 VAC 5-80-490 G)

2. Such changes that may require a permit modification and/or revisions include, but are not limited to, the following:

   a. Erection, fabrication, installation, addition, or modification of an emissions unit (which is the source, or part of it, which emits or has the potential to emit any regulated air pollutant), or of a source, where there is, or there is potential of, a resulting emissions increase;

   b. Reconstruction or replacement of any emissions unit or components thereof such that its capital cost exceeds 50% of the cost of a whole new unit;

   c. Any change at a source which causes emission of a pollutant not previously emitted, an increase in emissions, production, throughput, hours of operation, or fuel use greater than those allowed by the permit, or by 9 VAC 5-80-11, unless such an increase is authorized by an emissions cap; or any change at a source which causes an increase in emissions resulting from a reduction in control efficiency, unless such an increase is authorized by an emissions cap;

   d. Any reduction of the height of a stack or of a point of emissions, or the addition of any obstruction which hinders the vertical motion of exhaust;

   e. Any change at the source which affects its compliance with conditions in this permit, including conditions relating to monitoring, recordkeeping, and reporting;

   f. Addition of an emissions unit which qualifies as insignificant by emissions rate (9 VAC 5-80-720 B) or by size or production rate (9 VAC 5-80-720 C);

   g. Any change in insignificant activities, as defined by 9 VAC 5-80-90 D.1.a(1) and 9 VAC 5-80-720 B and 9 VAC 5-80-720 C.

   (9 VAC 5-80-490 G, 9 VAC 5-80-490 J, 9 VAC 5-80-240, and 9 VAC 5-80-260)

K. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege. (9 VAC 5-80-490 G)

L. Duty to Submit Information

1. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9 VAC 5-80-490 G)

2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
(9 VAC 5-80-490 K)

M. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-305 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-355. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by **April 15** of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.
(9 VAC 5-80-360, 9 VAC 5-80-310, and 9 VAC 5-80-355)

N. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

2. Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;

4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-40-90 and 9 VAC 5-50-90)

O. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9 VAC 5-50-20 E and 9 VAC 5-40-20 E)

P. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-500 Article 3 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.
(9 VAC 5-80-490 J)

Q. Inspection and Entry Requirements

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-490 K)

R. Reopening For Cause

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-430 F.

1. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-490 D.

(9 VAC 5-80-490 L)

S. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.
(9 VAC 5-80-510 E)

T. Transfer of Permits

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
(9 VAC 5-80-520)

2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall

notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-560.
(9 VAC 5-80-520)

3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-560.
(9 VAC 5-80-520)

U. Malfunction as an Affirmative Defense

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of paragraph 2 of this condition are met.

2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:

   a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.

   b. The permitted facility was at the time being properly operated.

   c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.

   d. The permittee notified the board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-490 F to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.

3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any requirement applicable to the source.

4. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.

(9 VAC 5-80-650)

V. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 3. The Board may suspend, under such conditions and for such period of time as the Board may prescribe, any permit for any of the grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-660)

W. Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-430 E)

X. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(40 CFR Part 82, Subparts A-F)

Y. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)

Z. Changes to Permits for Emissions Trading

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9 VAC 5-80-490 I)

AA. Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-490, except subsection N, shall be included to determine compliance.

2. The permit shield described in 9 VAC 5-80-500 shall extend to all terms and conditions that allow such increases and decreases in emissions.

3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-360 through 9 VAC 5-80-700.

(9 VAC 5-80-490 I)

XII. State-Only Enforceable Requirements

The following terms and conditions are not required under the federal Clean Air Act or under any of its applicable federal requirements, and are not subject to the requirements of 9 VAC 5-80-690 concerning review of proposed permits by EPA and draft permits by affected states.

1. Odor (9 VAC 5 Chapter 40, Article 2)

2. State toxics rule (9 VAC 5 Chapter 60)

(9 VAC 5-80-490 N and 9 VAC 5-80-700)

XIII. NOx Allowance Budget Trading Permit Requirements

A. General Conditions

1. A review of the air emission units included in this permit approval has determined that the equipment listed in the following table meets the definition of a NO_X Budget Unit and is subject to the NO_X Budget emission limitations under 9 VAC 5-140-40, or for opt-in sources 9 VAC 5-140-800. As required by 9 VAC 5-140-200 A for each NO_X Budget source required to have a federally enforceable permit, such permit will include the NO_X Allowance Budget Trading permit to be administered by the permitting authority. This section represents the NO_X Budget Trading permit.
   (9 VAC 5-140-40)

2. The NO_X Budget Trading permit will be administrated by the DEQ under the authority of 9 VAC 5 Chapter 80, Part II, Articles 1 and 3 (9 VAC 5-80-50 et seq. and 9 VAC 5-80-360 et seq.), and 9 VAC 5 Chapter 140, Part I (9 VAC 5-140-10 et seq.).
   (9 VAC 5-140-10)

3. The following air emission units have been determined to meet the applicability requirements as provided in 9 VAC 5-140-40 A.1 and A.2. Units that do not meet this definition, are not defined as 25-Ton Exemption Units and are not permanently shutdown can be included in the NO_X Budget Trading program as "opt-in" air emission sources.
   (9 VAC 5-140-40 A)

Table XIII – 1
Facility NO_X Budget Units

Facility Unit ID	NATS Account ID	Unit Name and description	Maximum Heat Capacity (MMBtu/hr)	Maximum Generation Capacity (megawatts)
001	010771-000001	Spreader Stoker Boiler #1 firing coal and natural gas	391 (coal) 59.5 (natural gas)	31.35
002	010771-000002	Spreader Stoker Boiler #1 firing coal and natural gas	391 (coal) 59.5 (natural gas)	31.35

4. This NO_X Budget Trading permit will become effective on May 31, 2004.
   (9 VAC 5-140-240.1)

B. Standard Requirements

1. Monitoring requirements.

   a. The owners and operators and, to the extent applicable, the NO_X authorized account representative of each NO_X Budget source and each NO_X Budget unit at the source shall comply with the monitoring requirements of Part I, Article 8 (9 VAC 5-140-700 et seq.).
   (9 VAC 5-140-60 B.1)

   b. The emissions measurements recorded and reported in accordance with (9 VAC 5-140-700 et seq.) (Subpart H of 40 CFR Part 97) shall be used to determine compliance by the unit with the NO_X Budget emissions limitation under paragraphs B.2.a through B.2.h.
   (9 VAC 5-140-60 B.2)

2. Nitrogen oxides requirements.

   a. The owners and operators of each NO_X Budget source and each NO_X Budget unit at the source shall hold NO_X allowances available for compliance deductions under 9 VAC 5-140-540 A, B, E, or F, as of the NO_X allowance transfer deadline, in the unit's compliance account and the source's overdraft account in an amount not less than the total NO_X emissions for the control period from the unit, as determined in accordance with Part I, Article 8 (9 VAC 5-140-700 et seq.), plus any amount necessary to account for actual utilization under 9 VAC 5-140-420 E for the control period or to account for excess emissions for a prior control period under 9 VAC 5-140-540 D or to account for withdrawal from the NO_X Budget Trading Program, or a change in regulatory status, of a NO_X Budget opt-in unit under 9 VAC 5-140-860 or 9 VAC 5-140-870.
   (9 VAC 5-140-60 C.1)

   b. Each ton of nitrogen oxides emitted in excess of the NO_X Budget emissions limitation shall constitute a separate violation of 9 VAC 5 Chapter 140, Part I, the Clean Air Act, and applicable Virginia Air Pollution law.
   (9 VAC 5-140-60 C.2)

   c. A NO_X Budget unit shall be subject to the requirements under 9 VAC 5-140-60 C.1 starting on the later of May 31, 2004, or the date on which the unit commences operation.
   (9 VAC 5-140-60 C.3)

d. NO_X allowances shall be held in, deducted from, or transferred among NO_X Allowance Tracking System accounts in accordance with Part I, Article 5 (9 VAC 5-140-400 et seq.), Article 6 (9 VAC 5-140-500 et seq.), Article 7 (9 VAC 5-140-600 et seq.), and Article 9 (9 VAC 5-140-800 et seq.).

(9 VAC 5-140-60 C.4)

e. A NO_X allowance shall not be deducted, in order to comply with the requirements under 9 VAC 5-140-60 C.1 for a control period in a year prior to the year for which the NO_X allowance was allocated.

(9 VAC 5-140-60 C.5)

f. A NO_X allowance allocated by the permitting authority or the administrator under the NO_X Budget Trading Program is a limited authorization to emit one ton of nitrogen oxides in accordance with the NO_X Budget Trading Program. No provision of the NO_X Budget Trading Program, the NO_X Budget permit application, the NO_X Budget permit, or an exemption under 9 VAC 5-140-50 and no provision of law shall be construed to limit the authority of the United States or the State to terminate or limit such authorization.

(9 VAC 5-140-60 C.6)

g. A NO_X allowance allocated by the permitting authority or the administrator under the NO_X Budget Trading Program does not constitute a property right.

(9 VAC 5-140-60 C.7)

h. Upon recordation by the administrator under Part I, Article 6 (9 VAC 5-140-500 et seq.), Article 7 (9 VAC 5-140-600 et seq.), or Article 9 (9 VAC 5-140-800 et seq.), every allocation, transfer, or deduction of a NO_X allowance to or from a NO_X Budget unit's compliance account or the overdraft account of the source where the unit is located is deemed to amend automatically, and become a part of, any NO_X Budget permit of the NO_X Budget unit by operation of law without any further review.

(9 VAC 5-140-60 C.8)

3. Excess emissions requirements.

a. The owners and operators of a NO_X Budget unit that has excess emissions in any control period shall:

(1) Surrender the NO_X allowances required for deduction under 9 VAC 5-140-540 D 1; and

(2) Pay any fine, penalty, or assessment or comply with any other remedy imposed under 9 VAC 5-140-540 D 3.

(9 VAC 5-140-60 D)

C. Recordkeeping and Reporting Requirements.

The following requirements concerning recordkeeping and reporting shall apply:

1. Unless otherwise provided, the owners and operators of the NO_X Budget source and each NO_X Budget unit at the source shall keep on site at the source each of the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the permitting authority or the administrator.
   (9 VAC 5-140-60 E.1)

   a. The account certificate of representation for the NO_X authorized account representative for the source and each NO_X Budget unit at the source and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with 9 VAC 5-140-130; provided that the certificate and documents shall be retained on site at the source beyond such five-year period until such documents are superseded because of the submission of a new account certificate of representation changing the NO_X authorized account representative.
      (9 VAC 5-140-60 E.1)

   b. All emissions monitoring information, in accordance with Part I, Article 8 (9 VAC 5-140-700 et seq.), provided that to the extent that Part I, Article 8 (9 VAC 5-140-700 et seq.) provides for a three-year period for recordkeeping, the three-year period shall apply.
      (9 VAC 5-140-60 E.1)

   c. Copies of all reports, compliance certifications, and other submissions and all records made or required under the NO_X Budget Trading Program.
      (9 VAC 5-140-60 E.1)

   d. Copies of all documents used to complete a NO_X Budget permit application and any other submission under the NO_X Budget Trading Program or to demonstrate compliance with the requirements of the NO_X Budget Trading Program.
      (9 VAC 5-140-60 E.1)

2. The NO_X authorized account representative of a NO_X Budget source and each NO_X Budget unit at the source shall submit the reports and compliance certifications required under the NO_X Budget Trading Program, including those under Part I, Article 4 (9 VAC 5-140-300 et seq.), Article 8 (9 VAC 5-140-700 et seq.), or Article 9 (9 VAC 5-140-800 et seq.).
   (9 VAC 5-140-60 E.1)

D. Testing

The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports will be provided at the appropriate locations.

(9 VAC 5-50-30 and 9 VAC 5-140-300)

E. Liability

1. Any person who knowingly violates any requirement or prohibition of the NO_X Budget Trading Program, a NO_X Budget permit, or an exemption under 9 VAC 5-140-50 shall be subject to enforcement pursuant to applicable State or Federal law.

   (9 VAC 5-140-100 F.1)

2. Any person who knowingly makes a false material statement in any record, submission, or report under the NO_X Budget Trading Program shall be subject to criminal enforcement pursuant to the applicable State or Federal law.

   (9 VAC 5-140-60 F.2)

3. No permit revision shall excuse any violation of the requirements of the NO_X Budget Trading Program that occurs prior to the date that the revision takes effect.

   (9 VAC 5-140-60 F.3)

4. Each NO_X Budget source and each NO_X Budget unit shall meet the requirements of the NO_X Budget Trading Program.

   (9 VAC 5-140-60 F.4)

5. Any provision of the NO_X Budget Trading Program that applies to a NO_X Budget source or the NO_X authorized account representative of a NO_X Budget source shall also apply to the owners and operators of such source and of the NO_X Budget units at the source.

   (9 VAC 5-140-60 F.5)

6. Any provision of the NO_X Budget Trading Program that applies to a NO_X Budget unit or the NO_X authorized account representative of a NO_X budget unit shall also apply to the owners and operators of such unit. Except with regard to the requirements applicable to units with a common stack under Article 8 (9 VAC 5-140-700 et seq.), the owners and operators and the NO_X authorized account representative of one NO_X Budget unit shall not be liable for any violation by any other NO_X Budget unit of which they are not owners or operators or the NO_X authorized account representative and that is located at a source of which they are not owners or operators or the NO_X authorized account representative.

   (9 VAC 5-140-60 F.6)

F. Effect on Other Authorities.

No provision of the NO_X Budget Trading Program, a NO_X Budget permit application, a NO_X Budget permit, or an exemption under 9 VAC 5-140-50 shall be construed as exempting or excluding the owners and operators and, to the extent applicable, the NO_X authorized account representative of a NO_X Budget source or NO_X Budget unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, the Clean Air Act.
(9 VAC 5-140-60 G)

To: **Mr. R. C. Craft, Air Compliance Manager**
Department of Environmental Quality – Piedmont Regional Office
5636 Southern Blvd.
Virginia Beach, VA 23462

From: **(Facility Name)**

Registration No. _____

Re: **TITLE V ANNUAL COMPLIANCE CERTIFICATION**

Date:

Please find attached our Title V Annual Compliance Certification for the period from ____/____/_____ to ____/____/_____. It identifies each term or condition of the permit that is the basis of the certification. All deviations and periods of non-compliance for the period have been addressed in semi-annual monitoring reports that have either been previously submitted or are enclosed.

Certification: I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who mange the system, or those persons directly responsible for gathering and evaluating the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____ _____

(*Signature)* *(Name & Title)*

cc: Director, Air and Waste Division (Mail drop 3AP00)
United States Environmental Protection Agency -- Region III
1650 Arch Street
Philadelphia, PA 19103-2029

(Annual Compliance Certifications are due 60 days following end of reporting period.)

To: **Mr. R. C. Craft, Air Compliance Manager**
Department of Environmental Quality – Piedmont Regional Office
5636 Southern Blvd.
Virginia Beach, VA 23462

From: **(*Facility Name)*** **Reg. No. _____**

Re: **PROMPT DEVIATION REPORT – Pursuant to Title V Permit**

Date:

This confirms the deviation reported to the Regional Office at _____ o'clock on ____/____/_____. The details are described below. The deviation may have caused excess emissions for more than one hour, consistent with specified averaging times. None of these deviations were related to a malfunction.

Start date & time:	**End date & time:**	**Estimated Duration:**
Deviation from which permit condition (*condition number and brief description*):		
Description of incident (*including emission unit affected)*:		
Description of Monitoring Requirement for affected unit(s):		
Probable cause:		
Description of corrective measures taken (*demonstrating a timely & appropriate response*):		
Description of preventive measures taken:		

Certification: I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who mange the system, or those persons directly responsible for gathering and evaluating the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____ _____

(*Signature)* *(Name & Title)*

To: Mr. R. C. Craft, Air Compliance Manager
Department of Environmental Quality – Piedmont Regional Office
5636 Southern Blvd.
Virginia Beach, VA 23462

From: (*Facility Name)* Reg. No. _____

Re: SEMI-ANNUAL MONITORING REPORT – Pursuant to Title V Permit

Date:

The following monitoring report is submitted as required by our Title V permit. For the purposes of this report, deviation means (1) exceedances of emission limits, as determined by such means as stack testing, continuous emission monitors, parametric monitoring and EPA Method 9 visible emission evaluations; (2) excursions from control device operating parameter requirements such as afterburner temperature, scrubber flow rate, baghouse pressure drop; (3) excursions from operational restrictions things such as throughput, fuel quality, and coating VOC and HAP content; and (4) failure to meet monitoring, record keeping or reporting requirements. The report addresses all data points, which are above a standard, limit etc, according to the averaging period, if any, specified in the permit. If no averaging period is specified in the permit, then any monitored reading is considered a deviation to be reported. Deviations are reported regardless of whether they may have caused excess emissions or whether they were the result of a malfunction.

The period covered by the report is from ____/____/_____ to ____/____/_____.

During the reporting period:

☐ No deviations from permit requirements occurred during this semi-annual reporting period. (We conducted all required monitoring and associated record keeping and reporting. Required monitoring revealed no deviations from permit requirements.)

☐ We failed to conduct required monitoring/record keeping/reporting as explained on the attached form.

☐ We identified deviations as a result of required monitoring:

- ☐ Deviations were addressed in CEM Excess Emission Report(s) dated: _____
- ☐ Deviations were addressed in Fuel Report(s) dated: _____
- ☐ Deviations were addressed in MACT Report(s) dated: _____
- ☐ Deviations due to malfunctions were addressed in letters dated: _____
- ☐ Deviations were addressed in other report(s) dated: _____

  Type of report:_____
- ☐ Deviations were previously described in Prompt Deviation Reports dated:

  _____ _____ _____ _____ _____

  _____ _____ _____ _____ _____
- ☐ "Other" deviations, which were not previously reported, are described in the attachment.

Certification: I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who mange the system, or those persons directly responsible for gathering and evaluating the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____ _____

(*Signature)* *(Name & Title)*

FAILURE TO MONITOR, KEEP RECORDS OR REPORT

Registration No. _____

Page _____ of _____

Submitted as Part of Semi-Annual Monitoring Report

Permit Condition No. & DESCRIPTION OF REQUIREMENT	DESCRIPTION OF DEVIATION (including date)	REASON FOR DEVIATION & CORRECTIVE ACTION

Annual Compliance Certification Registration No. _______________ Page ______ of _______

Cond. No.	TERMS & CONDITIONS CONTAINED IN THE PERMIT *(list in order)*	MEANS OF DETERMINING COMPLIANCE STATUS	TYPE OF DATA THE MEANS PROVIDES	PERIODS OF NON-COMPLIANCE
			☐ **Continuous** ☐ **Intermittent**	☐ **Yes** ☐ **No**
			☐ **Continuous** ☐ **Intermittent**	☐ **Yes** ☐ **No**
			☐ **Continuous** ☐ **Intermittent**	☐ **Yes** ☐ **No**
			☐ **Continuous** ☐ **Intermittent**	☐ **Yes** ☐ **No**
			☐ **Continuous** ☐ **Intermittent**	☐ **Yes** ☐ **No**
			☐ **Continuous** ☐ **Intermittent**	☐ **Yes** ☐ **No**
			☐ **Continuous** ☐ **Intermittent**	☐ **Yes** ☐ **No**
			☐ **Continuous** ☐ **Intermittent**	☐ **Yes** ☐ **No**

Form approved for use 9/18/00

“OTHER” DEVIATIONS **Registration No. _____** **Page _____ of _____**

Submitted as Part of Semi-Annual Monitoring Report

Condition No. & Description of Requirement	**Description of Deviation** (time, emission unit, description of event, cause)	**Description of Associated Monitoring Requirement**	**Description of corrective measures taken (*demonstrating a timely & appropriate response*)**

(Report deviations which may have caused excess emissions for more than one hour on a deviation report form, not here.